

**Data Sheet** 

## SMG-5400 | Wireless LAN Modbus Gateway



#### Overview

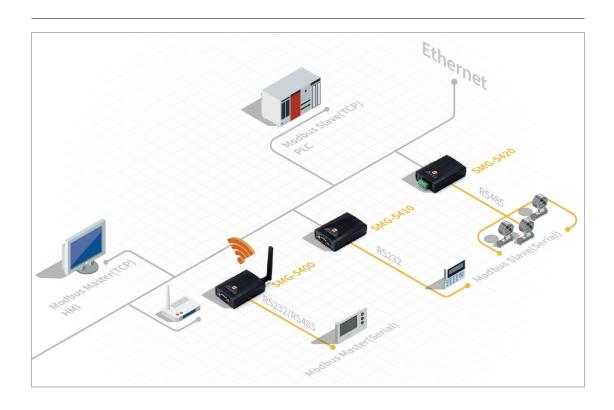
SMG-5400 is an industrial Modbus Gateway that converts and routes Modbus data between the serial line and Modbus/TCP. This can help communicate between Modbus master (or slave) of serial line and Modbus slave (or master) of network.

SMG-5400 provides IEEE802.11b/g wireless LAN and a universal serial port which can be selected to RS232, RS422 or RS485.

#### **Features**

- · Wireless LAN Modbus Gateway
- · IEEE 802.11b/g 2.4GHz wireless LAN
- · A universal serial port which can be selected to RS232, RS422 or RS485
- · Self-developed TCP/IP stack
- · RP-SMA connector for an external antenna

# System Diagram



### Specifications

Serial Interface  R5232 - RXA, TXD, RTS, CTS, GND  R5422 - RX+, RX-, TX+, TX-, GND with embedded 3.9K biasing resistors  R5485 - TRX+, TRX-, GND with embedded 3.9K biasing resistors  P 9 pin D-sub male  Serial Port Properties  Baudrate 1,200bps - 230,400bps  Data Bits 8 bits, 7 bits with Parity Parity None, Even, Odd, Mark, Space  Stop Bit 1, 2  Network Physical Interface  IEEE802.1b/g Wireless LAN  Wireless LAN Interface  Software Functions  IPV4//PV6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Temperature -20°C ~ +60°C  Storage Temperature -20°C ~ +60°C  Certificate  KC  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35, KS X 3132-2018)	Serial Physical Interface		
Serial Interface  RS422 - RX+, RX-, TX+, TX-, GND with embedded 3.9K biasing resistors  RS485 - TRX+, TRX-, GND with embedded 3.9K biasing resistors  9 pin D-sub male  Serial Port Properties  Baudrate 1,200bps ~ 230,400bps  Data Bits 8 bits, 7 bits with Parity  Parity None, Even, Odd, Mark, Space  Stop Bit 1, 2  Network Physical Interface  IEEE80211b/g Wireless LAN  Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPV4/IPV6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SFX Yellow SFX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 22mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature Storage Temperature  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate	·		
resistors  RS485 - TRX+, TRX-, GND with embedded 3.9K biasing resistors  Connector  9 pin D-sub male  Serial Port Properties  Baudrate 1,200bps ~ 230,400bps  Data Bits 8 bits, 7 bits with Parity Parity None, Even, Odd, Mark, Space  Stop Bit 1, 2  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IEEE802.11b/g Wireless LAN  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MTX Green MTX Green MRX Yellow SRX Yellow SRX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature  Storage Temperature  Certificate  Certificate  Certificate  Certificate  Certificate	Serial Interface		
Connector  Serial Port Properties  Baudrate  1,200bps ~ 230,400bps  Data Bits  8 bits, 7 bits with Parity Parity None, Even, Odd, Mark, Space  1, 2  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MTX Green MRX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature Storage Temperature  Storage Temperature  Certificate  Certificate  Certificate  Certificate  Certificate		_	
Connector  Serial Port Properties  Baudrate  1,200bps ~ 230,400bps  Data Bits  Baits, 7 bits with Parity  None, Even, Odd, Mark, Space  1, 2  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack  TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII  WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR  Red  RUN Yellow LINK Green MTX Green MTX Green MRX Yellow STX Green  MRX SRX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature Storage Temperature  Storage Temperature  Storage Temperature  Certificate  Certificate  Certificate  Certificate		RS485 - TRX+, TRX-, GND with embedded 3.9K biasing resistors	
Baudrate 1,200bps ~ 230,400bps  Data Bits 8 bits, 7 bits with Parity  Parity None, Even, Odd, Mark, Space  Stop Bit 1, 2  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  IEVEROUTH/g Wireless LAN  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MRX Yellow SRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption Operating Temperature  5torage Temperature  - 20°C ~ +60°C  Certificate	Connector		
Data Bits 8 bits, 7 bits with Parity Parity None, Even, Odd, Mark, Space Stop Bit 1, 2  Network Physical Interface  IEEE80211b/g Wireless LAN Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPV4/IPV6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Protocols  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MRX Yellow SRX Yellow STX Green  STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature -20°C ~ +60°C  Certificate	Serial Port Properties		
Parity None, Even, Odd, Mark, Space  Stop Bit 1, 2  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption 210mA Typical Operating Temperature -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-17, KN 32, KN 35,	Baudrate	1,200bps ~ 230,400bps	
Stop Bit  Network Physical Interface  IEEE802.11b/g Wireless LAN  Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Protocols  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MRX Yellow SRX Yellow STX Green  Soft Management  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature  Certificate  Certificate	Data Bits	8 bits, 7 bits with Parity	
Network Physical Interface  IEEE802:11b/g Wireless LAN  Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MTX Green MRX Yellow SRX Yellow STX Green  STX Green  Management  configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature  Certificate	Parity	None, Even, Odd, Mark, Space	
IEEE802.11b/g Wireless LAN	Stop Bit	1, 2	
Wireless LAN Interface  Supplied with a dipole 2dBi Antenna Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption  Question Typical  Operating Temperature  -20° ~ +60°   Storage Temperature  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate	Network Physical Interface		
Reverse Polarity SMA connector for external antennas  Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature Storage Temperature  Certificate  Certificate	Wireless LAN Interface	IEEE802.11b/g Wireless LAN	
Software Functions  IPv4/IPv6 Dual Stack TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments Input Voltage Current Consumption Operating Temperature Storage Temperature  Storage Temperature  Certificate		Supplied with a dipole 2dBi Antenna	
IPv4/IPv6 Dual Stack   TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS   Modbus/RTU, Modbus/ASCII   WPA-PSK / WPA2-PSK   WPA2-PSK   WPA2-PSK   WPA-Enterprise (TLS/TTLS/PEAP)		Reverse Polarity SMA connector for external antennas	
TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS  Modbus/RTU, Modbus/ASCII  WPA-PSK / WPA2-PSK  WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red  RUN Yellow  LINK Green  MTX Green  MRX Yellow  SRX Yellow  STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption 210mA Typical  Operating Temperature  Storage Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate  Certificate	Software Functions		
Protocols  Modbus/RTU, Modbus/ASCII  WPA-PSK / WPA2-PSK  WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red RUN Yellow  LINK Green  MTX Green  MRX Yellow  SRX Yellow  STX Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  Current Consumption  Operating Temperature  -20° ~ +60°C  Storage Temperature  -20° ~ +60°C  Certificate	Protocols	IPv4/IPv6 Dual Stack	
WPA-PSK / WPA2-PSK WPA-Enterprise (TLS/TTLS/PEAP)  Security Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature -20° ~ +60°  Storage Temperature -20° ~ +60°  Certificate		TCP/UDP, ICMP, DHCP, Modbus/TCP, mDNS	
WPA-Enterprise (TLS/TTLS/PEAP)  Security  Password  Indicators (LEDs)  PWR Red RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management spFinder  Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature -20°C ~ +60°C  Certificate		Modbus/RTU, Modbus/ASCII	
Password		WPA-PSK / WPA2-PSK	
Indicators (LEDs)  PWR Red RUN Yellow  LINK Green  MTX Green  MRX Yellow  SRX Yellow  STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension  Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption 210mA Typical  Operating Temperature -20°C ~ +60°C  Storage Temperature -20°C ~ +60°C  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,		WPA-Enterprise (TLS/TTLS/PEAP)	
PWR RUN Yellow LINK Green MTX Green MRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments Input Voltage Current Consumption Operating Temperature -20°C ~ +60°C Storage Temperature  Certificate  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	Security	Password	
RUN LINK Green  MTX Green  MRX Yellow SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature -20°C ~ +60°C  Certificate  Certificate  Certificate  Certificate  Certificate  Certificate	Indicators (LEDs)		
LINK  MTX  Green  MRX  Yellow  SRX  Yellow  STX  Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  Current Consumption  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
MTX  MRX  Yellow  SRX  Yellow  STX  Green  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  DC 5±0.5V  Current Consumption  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
MRX SRX Yellow STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments Input Voltage DC 5±0.5V  Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
SRX STX Green  Management  spFinder Configuration and Monitoring Tool through USB  Dimension Size 88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage DC 5±0.5V  Current Consumption Operating Temperature -20°C ~ +60°C  Storage Temperature Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
STX  Management  spFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  DC 5±0.5V  Current Consumption  210mA Typical  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
Management  SpFinder  Configuration and Monitoring Tool through USB  Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  DC 5±0.5V  Current Consumption  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,			
Size  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  Current Consumption  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	SIX		
Dimension  Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  DC 5±0.5V  Current Consumption  210mA Typical  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	F: 1	<del>_</del>	
Size  88.5mm x 57mm x 23mm (excluding antenna)  Operating Environments  Input Voltage  DC 5±0.5V  Current Consumption  Operating Temperature  -20°C ~ +60°C  Storage Temperature  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	spFinder		
Operating Environments  Input Voltage DC $5\pm0.5V$ Current Consumption 210mA Typical  Operating Temperature $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Storage Temperature $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	Cino		
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Current Consumption  210mA Typical  Operating Temperature  -20°C ~ +60°C  Storage Temperature  -20°C ~ +60°C  Certificate  Certificate  Certificate (KN 301 489-1, KN 301 489-17, KN 32, KN 35,	Input Voltage	· · ·	
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FCC FCC Part 15 Subpart C			